

DEAD LOAD CALCULATIONS:

ROOF LEVEL

Primary Beams:
W16 X 26: 2 @ 56’(26lbs/ft)= 2,912lbs

Secondary Beams:
W12 x 26: 7 @ 15’(26lbs/ft)= 2,730lbs

Joists:
12K1: 25 @ 15’(5lbs/ft)= 2,100lbs
12K1: 7 @ 4’-6”(5lbs/ft)= 157.5lbs
12K1: 3 @ 6’-9”(5lbs/ft)= 101.25lbs
12K1: 10 @ 10’(5lbs/ft)= 500lbs
Joist Total: 2860lbs

3”concrete deck with 2” mtl deck: 3lbs/sqft
Built up roof: 7lbs/sqft
Total sqft 14,105 lbs/sqft

Total:22605lbs
@ 2015sqft= 11.5lbs/sqft @ Roof

4rd LEVEL

Primary Beams:
W16 X 26: 2 @ 56’(26lbs/ft)= 2,912

Secondary Beams:
W12 x 26: 7 @ 15’(26lbs/ft)= 2,730lbs

Joists:
12K1: 25 @ 15’(17.6lbs/ft)= 6,600lbs
12K1: 7 @ 4’-6”(17.6lbs/ft)= 554lbs
12K1: 3 @ 6’-9”(17.6lbs/ft)= 356lbs
12K1: 5 @ 10’(17.6lbs/ft)= 880lbs
Joist Total: 8,390lbs

3”concrete deck with 2” mtl deck: 35lbs/sqft
Total: 70,525lbs/sqft

Walls and Ceilings: 2.8lbs/sqft
Total: 5642lbs/sqft

Total:90,523lbs
@ 2015sqft= 44.5lbs/sqft

3rd Level

Primary Beams:
W16 X 26: 2 @ 56’(26lbs/ft)= 2,912

Secondary Beams:
W12 x 26: 7 @ 15’(26lbs/ft)= 2,730lbs

Joists:
12K1: 25 @ 15’(17.6lbs/ft)= 6,600lbs
12K1: 7 @ 4’-6”(17.6lbs/ft)= 554lbs
12K1: 3 @ 6’-9”(17.6lbs/ft)= 356lbs
12K1: 5 @ 10’(17.6lbs/ft)= 880lbs
Joist Total: 8,390lbs

3”concrete deck with 2” mtl deck: 3lbs/sqft
Total: 6,045lbs/sqft

Walls and Ceilings: 2.8lbs/sqft

Total: 5642lbs/sqftTotal:90,523lbs
@ 2015sqft= 44.5lbs/sqft

DEAD LOAD CALCULATIONS:

2nd Level

Primary Beams:
W16 X 26: 2 @ 56’(26lbs/ft)= 2,912

Secondary Beams:
W12 x 26: 7 @ 15’(26lbs/ft)= 2,730lbs

Joists:
12K1: 25 @ 15’(17.6lbs/ft)= 6,600lbs
12K1: 7 @ 4’-6”(17.6lbs/ft)= 554lbs
12K1: 3 @ 6’-9”(17.6lbs/ft)= 356lbs
12K1: 5 @ 10’(17.6lbs/ft)= 880lbs
Joist Total: 8,390lbs

3”concrete deck with 2” mtl deck: 3lbs/sqft
Total: 6,045lbs/sqft

Walls and Ceilings: 2.8lbs/sqft
Total: 5642lbs/sqft

1st Level

Waffle Slab @ Base: 12lbs/sqft
24,180lbs

LIVE LOAD CALCULATIONS:

RETAIL (LIGHT): 125 psf
Assembly (fixed seating): 60 psf

Level 4
Restaurant: 125psf
@ 2,015sqft

Total: 251,875

Level 3
Theater 60 psf
@ 2,015
Total: 120,900sqft

Level 2
Theater 60 psf
@ 2,015
Total: 120,900sqft

Level 1
Theater 60 psf
@ 2,015
Total: 120,900sqft

Project Name:
3500 STUDIO PROJECT

City, Country
Houston, Texas USA

Latitude/Longitude/Elevation
29°45’46”N 95°22’59”W
43ft

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TECHNOLOGY 3

DOSSIER ONE